

What are the Toxins in My Meal?

Dioxin is the term for a group of toxic chemicals found throughout the environment. Dioxins have no known use and are by-products of certain industrial activities. Exhaust from vehicles, forest fires, and burning trash also releases dioxins into the air.

PCBs, or Polychlorinated Biphenyls, are man-made Chemicals. ~~many of which may cause cancer.~~ PCB production was banned in the 1970s, however the toxins continue to enter the environment through spills, leaks and improper disposal.

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Airborne toxins are deposited on water surfaces, then settle to the bottom. (Toxins can also be found in water due to discharge and runoff.)

Fish filter the tainted sediment in the water ~~or eat contaminated aquatic life~~ and toxins build up in their ~~fat and organs~~ **bodies**.

- Fatty fish (like catfish)
- Fish that eat other fish
- Fish caught near industrial areas
- Glands / organs of **fish**, crabs and shellfish

Fish and Shellfish that Contain Toxins

Dioxins and PCBs stay in the human body for years. Exposure occurs when people, especially pregnant women and women who are breast feeding, eat food with dioxins and PCBs. The toxins are passed into their children's bodies.

Potential Health Problems

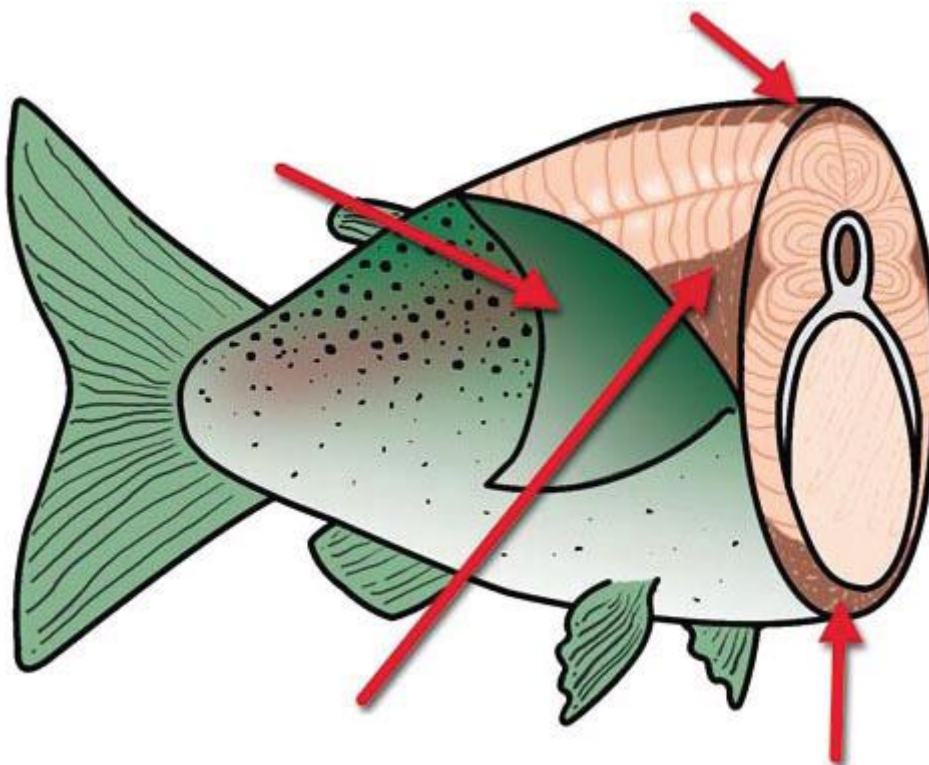
- Increased cancer risks
- Immune system issues
- Liver damage
- Thyroid disorders
- Type 2 diabetes
- ~~Wasting disease~~
- Nerve disorders
(motor skill problems)
- ~~Eye lesions~~
- Digestive tract issues
- Skin sores and rashes
- Fatigue and headaches
- Endometriosis and
irregular menstrual
cycles
- Reduced fertility
- Birth defects
- Child learning and
developmental defects

Seafood Eating Advisory

- Adults should limit eating to no more than one eight ounce meal per month.

- Women who are nursing, pregnant, or who may become pregnant and children under twelve years old should not eat seafood from these areas. Dioxins and PCBs are stored mainly in the fat of seafood. You can ~~get rid of almost half~~ **reduce your exposure to the** toxins by using these techniques:

The text for “remove belly fat” and “cut out fatty dark meat along length...” should be swapped. The text currently identifies the wrong area of the fish.



Remove
skin
Cut away fat
along the back
Cut out fatty dark meat
along the length of the fillet
Remove
belly fat
Cut
out
guts

- Remove from fish:
 - Skin and the thin layer of fat under the skin.
 - Guts, belly fat, fat along the back, and fatty dark meat along the length of the fillet.
- Bake or grill fish. Throw away cooking juices.
- Do not use the whole fish, fat, skin, organs, or juices in soups or stews.
- Do not eat the soft green parts of crab where

toxins build up.

*According to The Texas Department of State Health Services

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- Vary the locations where you fish in case the spot where you usually fish is more contaminated.
 - Eat a mix of different kinds of fish.
 - Do not eat fish that eat other fish. (They often have the most toxins and other chemicals.)
 - Eat smaller, younger fish. (Younger fish usually have less toxins than larger, older fish.)
 - Practice “catch and release” fishing.
- In response to the dioxins and PCB problem, the Texas Commission for Environmental Quality (TCEQ) initiated a Total Maximum Daily Load (TMDL) study project in the Houston Ship Channel and Upper Galveston Bay to:
- Pinpoint sources of dioxins and PCBs.
 - Develop an action plan to address the problem.

Seafood Safety Division and Aquatic Life Group

~~www.dshs.state.tx.us/seafood/~~ <http://www.dshs.state.tx.us/seafood/>
512-834-6757

www.h-gac.com/dioxintmdl

www.tnrcc.state.tx.us/water/quality/tmdl/?????

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